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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,354	02/06/2002	Joseph A. Kozlowski	AL01381K	4273

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SCHERING-PLOUGH CORPORATION  
PATENT DEPARTMENT (K-6-1, 1990)  
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EXAMINER

COPPINS, JANET L

ART UNIT PAPER NUMBER

1626

DATE MAILED: 10/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/072,354

Applicant(s)

KOZLOWSKI ET AL.

Examiner

Janet L. Coppins

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 61-126 is/are pending in the application.
- 4a) Of the above claim(s) 86-89 and 91-111 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 61 is/are rejected.
- 7) ☒ Claim(s) 62-85, 90, and 112-126 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

Claims 61-126 are pending in the instant application.

### *Information Disclosure Statement*

1. Applicants' Information Disclosure Statement (IDS), submitted July 8, 2005, has been considered by the Examiner. Please refer to the attached copy of Applicants' PTO-1449 form, submitted herewith.

### *Election/Restrictions*

2. Receipt is acknowledged of Applicants' Response to the Restriction Requirement, submitted July 14, 2006, which has been reviewed by the Examiner and entered of record in the file. Applicant's election **with traverse** of Group I, claims 61-85, 90, and 112-136 in part, and the specific compound "S" in Table 1 of the Specification, is acknowledged.

Regarding the traversal, the Examiner directs Applicants' attention to Section 803.02 of the MPEP, the subsection that addresses Markush-type claims:

"This subsection deals with Markush-type generic claims which include a plurality of alternatively usable substances or members. In most cases, a recitation by enumeration is used because there is no appropriate or true generic language. A Markush-type claim can include independent and distinct inventions. This is true where two or more of the members are so unrelated and diverse that a prior art reference anticipating the claim with respect to one of the members would not render the claim obvious under 35 U.S.C. 103 with respect to the other member(s). In applications containing claims of that nature, the examiner may require a provisional election of a single species prior to examination on the merits. The provisional election will be given effect in the event that the Markush-type claim should be found not allowable. Following election, the Markush-type claim will be examined fully with respect to the elected species and further to the extent necessary to determine patentability. If the Markush-type claim is not allowable over the prior art, examination will be limited to the Markush-type claim and claims to the elected species, with claims drawn to species patentably distinct from the elected species held withdrawn from further consideration."

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Therefore, the claims herein lack unity of invention under MPEP 803.02, since the compounds defined in the claims lack a significant structural element qualifying as the substantial structural feature that defines a contribution over the prior art. The compounds claimed contain only an diphenyl-amino moiety in common (variables **excluded**), which does not define a contribution over the prior art. Please refer to the referenced journal articles, which disclose the same moiety. Furthermore, the substituents vary extensively and when taken as a whole result in vastly different compounds. Accordingly, unity of invention is considered to be lacking and restriction of the invention in accordance with the rules of unity of invention is considered to be proper. Additionally, the vastness of the claimed subject matter and the complications in understanding the claimed subject matter imposes a burden on any examination of the claimed subject matter.

The requirement is still deemed proper and is therefore made FINAL.

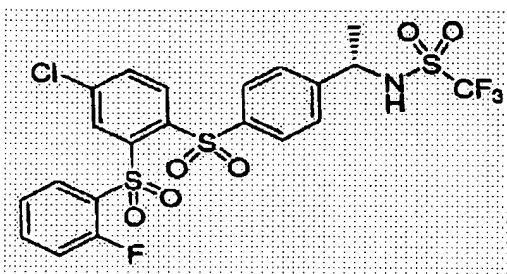
3. Accordingly, Groups II –X currently withdrawn from consideration pursuant to 37 CFR 1.142(b), as directed to non-elected subject matter.
4. Applicant is reminded that upon the cancellation of subject matter to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

#### ***Status of the Claims***

5. Claims 61-85, 90, and 112-126 are pending in the application. Claims 86-89 and 91-111, drawn to methods of use and pharmaceutical compositions containing additional ingredients, are

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currently withdrawn from consideration by the Examiner, as stated above. Applicants have further elected the species of compound "S", the compound of the formula:



The scope of the invention of the elected subject matter is as follows,

Compounds according to the formula of claim 61, wherein:  $R^4$  is limited to optionally substituted phenyl rings, and the remaining variables are as defined in the claims.

As a result of the election and the corresponding scope of the invention as identified above, the remaining subject matter of claims 61-85, 90, and 112-126 **withdrawn** from further consideration pursuant to 37 CFR 1.142 (b) as being drawn to non-elected inventions (i.e. a few compounds and compositions within claims 66-68 and 90 that contain other than phenyl rings for the  $R^4$  position are excluded from the scope of the invention defined above), please refer to pages 3-4 of the Restriction Requirement which explain the practice set forth for defining the scope of an independent invention. The **withdrawn** compounds contain varying functional groups for the  $R^4$  moiety, which are chemically recognized to differ in structure and function from the elected invention set, as defined above. This recognized chemical diversity of the functional groups can be seen by the various classification of these functional groups in the U.S. classification system. Therefore the subject matter that has been withdrawn from consideration as being non-elected subject matter, differs materially in structure and composition and has been restricted properly,

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and a reference that anticipates the elected subject matter would not render obvious the withdrawn subject matter, and the fields of search would not be coextensive.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claim 61 in part rejected under 35 U.S.C. 102(b) as being anticipated by Joseph, K. Abraham et al, Polymer International. The Joseph et al journal article discloses triphenyl compounds that are the same as the compounds of the instant claims, wherein Applicants' L<sup>1</sup> and L<sup>2</sup> would be sulfur, R<sup>1</sup> and R<sup>2</sup> are methyl; R<sup>3</sup> is not present; R<sup>4</sup> is phenyl substituted by X, wherein X is –CON(R<sup>2</sup>)<sub>2</sub> and R<sup>2</sup> is methyl; R<sup>5</sup> and R<sup>6</sup> form a carbonyl group; and Y and Z are covalent bonds, please refer to the compound of RN 145874-63-1, for example.

8. Claim 61 in part also rejected under 35 U.S.C. 102(b) as being anticipated by Malichenko, B.F. et al, Zhurnal Organicheskoi Khimii. The Malichenko et al journal article discloses triphenyl compounds that are the same as the compounds of the instant claims, wherein Applicants' L<sup>1</sup> and L<sup>2</sup> would be sulfonyl, R<sup>1</sup> and R<sup>2</sup> are hydrogen; R<sup>3</sup> is not present; R<sup>4</sup> is phenyl substituted by X, wherein X is –CON(R<sup>2</sup>)<sub>2</sub> and R<sup>2</sup> is hydrogen; R<sup>5</sup> and R<sup>6</sup> form a carbonyl group; and Y and Z are covalent bonds, please refer to the compound of RN 55709-49-4, for example.

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***Claim Objections***

9. Claims 62-85, 90, and 112-126 are objected to as being dependent on a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

10. In conclusion, claims 61-126 are pending, claims 86-89 and 91-111 are currently withdrawn from consideration, claim 61 is rejected, and claims 62-85, 90, and 112-126 are objected to.

***Telephone Inquiry***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janet L. Coppins whose telephone number is 571.272.0680. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph K. McKane can be reached on 571.272.0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Janet L. Coppins  
September 26, 2006

  
Joseph K. McKane  
SPE, Art Unit 1626